

Title: **Fishing Games Under Climate Variability: Transboundary Management of Pacific Sardine in the California Current System**

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Abstract: Pacific sardine (*Sardinops sagax*), which is a transboundary resource targeted by Mexican, U.S. and Canadian fisheries, has exhibited extreme decadal variability in its abundance and geographic distribution corresponding to water temperature regime shifts within the California Current Ecosystem. Our study develops a three-agent bioeconomic framework that incorporates environmental effects on sardine abundance and biomass distribution. Simulations are conducted to evaluate the conservation and economic benefits of various management strategies for the time variant/asymmetric shares of the Pacific sardine resource by three countries.